

Application for Federal Assistance SF-424

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

Completed by Grants.gov upon submission.

4. Applicant Identifier:

USDA - NRCS - NHQ - CFWR - 23 - NOF00001

5a. Federal Entity Identifier:

576000311

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

Choose State...

8. APPLICANT INFORMATION:

* a. Legal Name: County of Beaufort

* b. Employer/Taxpayer Identification Number (EIN/TIN):

576000311

* c. UEI:

XFSKWHHQM58

d. Address:

* Street1:

100 Ribaut Rd

Street2:

* City:

Beaufort

County/Parish:

SC

* State:

SC: South Carolina

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

29902-4453

e. Organizational Unit:

Department Name:

Public Works

Division Name:

Solid Waste & Recycling

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

* First Name:

Victoria

Middle Name:

* Last Name:

Hoffman

Suffix:

Title: Solid Waste & Recycling Program Manager

Organizational Affiliation:

BEAUFORT COUNTY

* Telephone Number:

8432552735

Fax Number:

* Email: victoria.hoffman@bcgov.net

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

B: County Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Natural Resources Conservation Service

11. Catalog of Federal Domestic Assistance Number:

10.935

CFDA Title:

Urban Agriculture and Innovative Production

* 12. Funding Opportunity Number:

USDA-NRCS-NHQ-CFWR-23-NOF00001235

* Title:

Composting and Food Waste Reduction (CFWR) Pilot Project

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Beaufort County Tract Information.pdf

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

Beaufort County- Organics Diversion Pilot Program

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:*** a. Applicant * b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:* a. Start Date: * b. End Date: **18. Estimated Funding (\$):**

* a. Federal	273,600.00
* b. Applicant	68,400.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	342,000.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☒ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☐ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 18, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

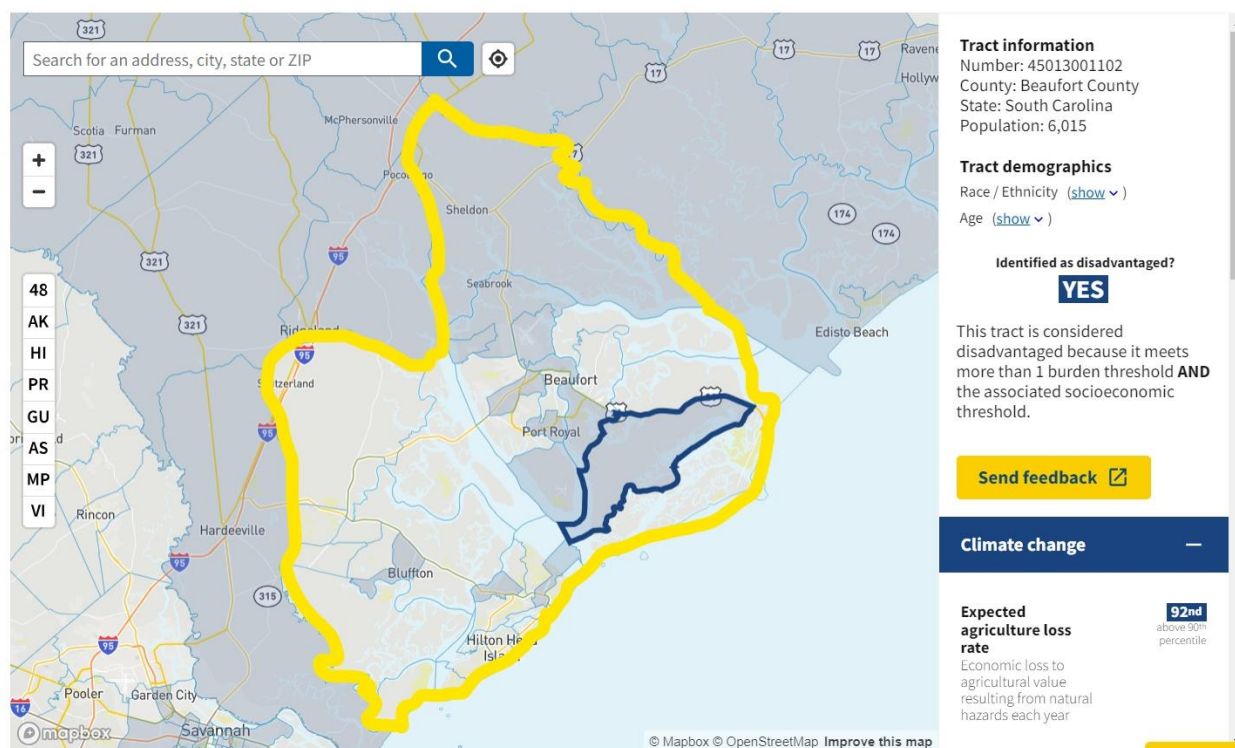
Suffix:

* Title: * Telephone Number: Fax Number: * Email: * Signature of Authorized Representative: * Date Signed:

Beaufort County, South Carolina – Areas Affected by Project

Education and outreach efforts will span all of Beaufort County. There are a variety of communities within the County that are identified as disadvantaged. The education and outreach efforts will provide educational tools and resources as well as knowledge to residents on the practices to follow. Efforts will encompass all age groups and demographics. Drop-off and curbside collection programs, as well as the compost product marketing campaign will also target the disadvantaged communities of the County to provide equitable access to all residents, businesses, and schools. Tract Information for the effected disadvantaged communities are as follows:

Number: 45013002107, 45013010500, 45013001000, 45013001102, 45013000903, 45013000800, 45013000600, 45013000400, 45013000200, 45013000100.



Project Narrative File(s)

* Mandatory Project Narrative File Filename:

Add Mandatory Project Narrative File

Delete Mandatory Project Narrative File

View Mandatory Project Narrative File

To add more Project Narrative File attachments, please use the attachment buttons below.

Add Optional Project Narrative File

Delete Optional Project Narrative File

View Optional Project Narrative File

USDA Composting and Food Reduction Grant – Project Narrative
Beaufort County Organics Diversion Pilot Project

I. INTRODUCTION

Beaufort County, South Carolina, (County) is requesting \$273,600 to provide the funding to implement a new, compost-focused Organics Diversion Pilot Project (Pilot Project) and is committing to cost share 25 percent of the requested amount, or \$68,400. Funds will be used to initiate a pilot project study, implement an outreach and education campaign, and produce compost. The program's goals are to increase education efforts regarding organic waste reduction and diversion, increase program participation, reduce greenhouse gas emissions associated with organic waste landfill disposal, and increase compost accessibility to local agricultural producers.

Beaufort County is located in coastal South Carolina and is comprised of several sea islands. Saint Helena Island (St. Helena) and the surrounding areas have a rich history in farming, and the state is well known for producing several agricultural products. The County is located within the Gullah-Geechee Heritage corridor, which is a National Heritage Area. St. Helena encompasses much of this corridor and is considered disadvantaged according to the Council on Environmental Quality, Climate, and Economic Justice Screening Tool (CEJST). The County has a total of 10 census tracts identified as disadvantaged by CEJST. Most importantly, St. Helena is ranked above the 90th percentile for expected agricultural loss or the economic loss to the agricultural value resulting from natural hazards. Environmental justice is a consideration throughout this Pilot Project. There is a targeted approach for factors such as being present and providing equitable access to organics recycling education in disadvantaged communities. These communities will directly benefit from these efforts by improving the quality of their soils through compost application and reducing emissions associated with landfill disposal.

At the time of the 2017 Census of Agriculture, there were 161 farms in the County covering nearly 56,000 acres. While only 13 percent of the agricultural land was cropland, crops accounted for 95 percent of agricultural sales in the County. Creating a rich compost product within Beaufort County would allow local farmers to easily access that commodity and demonstrate a sustainable lifecycle for organic waste. Increased use of compost on cropland has many benefits, including increasing water infiltration, moisture retention, and organic matter in soils.

Currently, Beaufort County has nine Collection Centers where solid waste is collected then transported to a landfill or to a Materials Recovery Facility for recyclable material diversion. Curbside collection is offered in the four municipalities within the County. The residents outside of these municipalities have the option of either using the tax-funded Convenience Centers or hiring a private contractor for curbside pickup at their own cost. In 2022, Beaufort County reported 29,848 tons of recycled material and diverted 6,416 tons of organics to boiler fuel to be converted to renewable energy. While there is progress in diversion, there is still room for improvement, as 256,724 tons of solid waste were discarded at the local landfill in 2022.

Since 2016, Beaufort County has partnered with the South Carolina Department of Health and Environmental Control (SCDHEC) in securing backyard compost bins to be purchased by residents. This program began in 2016 and is currently in operation. The County recycling coordinator hosts educational talks on the benefits of composting and diverting waste. An online tutorial of proper composting steps was created in-house to further educate residents on backyard composting.

The first step of the Pilot Project is initiating a pilot project study to identify project needs, limitations, and schedule. An emphasis will be placed on identifying underserved communities at all points in the organic waste lifecycle. The study will also identify the areas with the most interest in participation and that would most benefit from increased compost use, and address the consumer segment of the food chain by identifying strategies to better educate consumers about sustainable practices. This step will result in the development of a targeted outreach and education campaign to increase participation throughout the County, both for organic waste generators and for processing and compost end-market partners.

Next, the County will deploy both the targeted outreach campaign and the pilot drop-off collection program. Residents will be provided kitchen countertop bins to collect their organic waste, which they can then drop off at one of the participating Collection Centers. The organic waste will then be transported off-site to be converted into compost. The County will develop a robust compost marketing program to maximize the use of this product by agricultural producers.

The implementation of this Organics Diversion Pilot Project will further provide a viable solution to decreasing the organic materials sent to the landfill, reduce greenhouse gas emissions, educate the community on the importance of the sustainable management of organic waste, and increase compost application for agricultural producers.

II. GOALS AND OBJECTIVES

According to SCDHEC's 2022 Solid Waste Management Annual Report (Annual Report), it was reported that approximately 18.37 percent of the waste stream in South Carolina consisted of yard waste and other organic material. In the Annual Report, SCDHEC's recommendation to local government organizations was to "maximize food waste reduction and recovery" with the following recommendations: promote the "Don't Waste Food South Carolina" campaign, re-evaluate solid waste plans to meet EPA's food waste reduction goal, increase consumer education and outreach efforts, and encourage food waste prevention and recovery initiatives in schools, businesses, and commercial organizations. Even before SCDHEC's 2022 Annual Report, Beaufort County had made a commitment to employ some similar strategies in its 2040 Comprehensive Plan (September 2021). These include establishing disposal alternatives like composting programs and protecting agricultural lands and cultures while promoting sustainable agricultural practices such as low use of pesticides and protection of soil quality, which are supported by the use of compost.

The County is particularly vulnerable to climate change and rising sea levels, as it has saltmarshes and tidal waters, sub-tropical maritime forests, forested wetlands, and over 30 miles of beaches. Reducing the amount of food waste buried in landfills is a key strategy in tackling the climate crisis. Food waste decomposing anaerobically in landfills releases methane, some of which will be captured by the landfill gas management system and some of which escapes through the surface of the landfill as fugitive emissions. In contrast, the compost that is produced from organic waste has many benefits, including the reduction of greenhouse gases in the atmosphere through greater and healthier plant growth and carbon sequestration.

Additional benefits of applying compost to agricultural land and community gardens include reductions in water loss, nutrient leaching, and pesticide use. This is not only beneficial to the crops; it also helps prevent issues with increased sediment, nutrient, and other pollutant loads in watersheds that drain to wetlands, rivers, and eventually the Atlantic Ocean. Preserving the water quality is an important part of preserving the culture of the local communities, including the Gullah/Geechee community, which has traditionally relied on local waters as a food source.

The County sends its municipal solid waste to the Hickory Hill Landfill in neighboring Jasper County, SC. Keeping the organic material within the County would not only provide the benefits described above but also would reduce the amount of waste being hauled out of the County. Fewer tons to haul would result in fewer truck trips and reduced emissions. This has the potential to improve air quality for the local community, both in Beaufort County and Jasper County.

Beaufort County has identified the following goals and objectives:

Goal 1: Implement Public Education/Community Outreach Program

- *Objective 1- Target Historically Underserved Communities*
St. Helena is one of the County's 10 census tracts identified as disadvantaged. St. Helena is ranked over the 90th percentile for expected agricultural loss. This Project would directly benefit these communities by increasing soil health, crop production, and water quality through the application of compost. It would also divert methane emissions associated with the disposal of organic waste.
- *Objective 2 – Create a Comprehensive Outreach Program and Materials*
The County will develop a comprehensive outreach program to support this pilot project. Namely, it will create a composting mascot and generate and distribute educational materials (e.g., pamphlets, videos, posters, signage, etc.).

Goal 2: Collaborate with County Stakeholders

- *Objective 3: Formalize Partnerships with County Stakeholders*
The County has reached out to its local stakeholders to identify possible partners for this pilot project. Thus far, the following partners have shown interest and are committed to supporting this Project's success:
 1. Daly Organics – A composting company located in Beaufort County will be the lead compost processor of the County's collected organic waste.

2. Smart Recycling- An organics and food waste hauling company will assist with the curbside organics collection programs.
 3. HDR Engineering, Inc. – An engineering firm acting as the County’s Solid Waste Management Consultant will perform the Pilot Project Study.
- *Objective 4: Execute Composting Contract*
Through its partnership with Daly Organics, the County will execute a composting contract for Daly Organics to process the collected organics. The County may execute multiple contracts for composting processing and other services to meet the needs and goals of this Project.
 - *Objective 5: Implement Organics Collection in Schools*
This pilot project will involve creating a school-focused outreach program complete with education materials and organics recycling containers to support organics diversion from the solid waste stream.
 - *Objective 6: Implement Green Business Program*
Through the new Green Business Program, businesses that recycle plastic and glass and divert their food waste will be awarded the honor of being a certified Beaufort County Green Business.

Goal 3: Develop Organic Waste Collection Infrastructure and Programs

- *Objective 7: Distribute Residential Compost Bins*
The County will provide residents with kitchen countertop bins to collect their organic waste. Initially, residents will be able to bring this material to the Collection Centers for composting. The second phase of the Project will deploy a curbside organics collection program in hopes of increasing participation.
- *Objective 8: Construct Organics Recycling Bins at Collection Centers*
This Project will purchase commercial dumpsters to collect organic materials at the Collection Centers and then transport them to an off-site composter.
- *Objective 9: Implement Curbside Residential Organics Collection Programs*
The second phase of this Project will implement a curbside residential organics collection program.

Goal 4: Monitor Program Progress

- *Objective 10: Collect and track diverted organic materials tonnage data*
As part of the collection and hauling activities, the County will measure the quantity of organic materials collected and diverted from landfill disposal.
- *Objective 11: Collect and track compost production cubic yard data*
Through its partners, the County will be able to record the amount of compost product produced as a result of this pilot project.
- *Objective 12: Report compost use quantity and location*
This pilot project will prioritize compost products being used by agricultural producers such as farms and community gardens. The Project will track and monitor the end-use destination, quantity, and frequency of delivery of the compost product.
- *Objective 13: Quantity compost application benefits*
Throughout the duration of the pilot project, the County will coordinate with the end users to better understand the benefits of compost application.

Goal 5: Increase Compost Application for Agricultural Producers

- *Objective 14: Develop an Effective Compost Marketing Campaign*
To target agricultural producers, particularly within St. Helena and other disadvantaged communities, the County and through its partners will advertise the sale of compost and compost giveaway events. This will be tracked by the number of agricultural producers contacted.

III. PROCEDURES AND WORK PLAN

The County is ready to initiate this Pilot Project immediately upon receiving the Notice to Proceed and has identified the anticipated schedule, key personnel, and tasks to accomplish the goals and objectives of this Pilot Project.

Pilot Project Schedule

The following is the anticipated schedule for this pilot project:

Tasks	Start Date	Completion Date
Task 1: Grant Monitoring and Reporting	March 2024	March 2026
Task 2: Pilot Project Study	March 2024	August 2024
Task 3: Formalize Partnerships	March 2024	September 2024
Task 4: Community Outreach Plan	October 2024	March 2026
Task 5: Collection Center Improvements	October 2024	December 2024
Task 6: Residential Drop-Off Program	January 2025	December 2025
Task 7: Compost Product Marketing Campaign	January 2025	March 2026
Task 8: Residential Curbside Collection Program	July 2025	December 2025
Task 9: Commercial Collection Program	July 2025	December 2025
Task 10: School Collection Program	July 2025	December 2025

Key Personnel

The following key personnel will lead the efforts described for each of the following tasks, along with the project collaborators as identified under the applicable task. Beaufort County Public Works staff is comprised of a multitude of people with a well-rounded knowledge of solid waste and recycling, as well as staff trained in diversity, equity, and inclusion. Beaufort County Public Works is an accredited County through the American Public Works Association. The staff has experience in planning environmental projects, solid waste, recycling, and organics diversion. Resumes of key members of the Project Team are included as an attachment to this narrative.

Chloee McGuigan is the Recycling Coordinator at Beaufort County. In the spring of 2020, Chloee graduated from the Ohio State University (OSU) with a degree in Environmental Economics, Development, and Sustainability with a Sustainability and Business Specialization. While attending OSU, Chloee was a member of the Sigma Alpha Professional Agriculture Sorority, where she served on the board in 2019. Additionally, in the spring of 2021, Chloee graduated from the University of Saint Francis with a Master's in Business Administration focused on Sustainability. In the summer of 2019, Chloee completed an internship on the island of Guam, where she studied and researched tropical agroforestry design and the growth of local produce.

Katie Herrera is the Assistant Public Works Director of Environmental. She is responsible for all local, state, and federal compliance for the Solid Waste & Recycling, and Stormwater Management programs. She is experienced in stormwater conservation and has over five years of experience with Beaufort County Public Works. She serves on the Board of Directors for the Southeastern Stormwater Association and Region 4 International Erosion Control Association.

David M. Wilhelm, P.E., is serving as Deputy Director of Public Works for Beaufort County and will have an active role in this Project. He has 26 years of solid waste experience and 38 years of overall industry experience, including design, permitting, construction management, and operational management. He has been with the County for eight years under the roles of Director of Public Works, Director of Capital Projects, and Assistant County Administrator of Public Works and Sustainability.

Victoria Hoffman is the Solid Waste & Recycling Program Manager and is a SCDHEC Certified Recycling Professional. She has completed the SWANA "Managing Compost Programs" course and is a member of the Southeast Sustainability Directors Network. She plans, directs, and manages department activities and personnel and specializes in sustainable solutions for solid waste initiatives. She previously served as Recycling Coordinator for the Nevada Division of Environmental Protection and for Beaufort County Solid Waste and Recycling.

Task 1: Grant Monitoring and Reporting

Throughout the grant term from the Notice to Proceed to the Final Report, the County will monitor, track, and report:

- The number of participants reached through the education and outreach activities
- The number of participants belonging to underserved communities
- The tonnage of organic waste diverted through the drop-off and collection programs
- The cubic yards of compost produced as a result of this Project
- The quantity and location of compost used by agricultural producers

Deliverables and Milestones:

- Monthly progress reports detailing the information above
- Successfully monitoring, tracking, and reporting during the grant term to gauge the program's impact.

Task 2: Pilot Project Study

The purpose of this task is to design the pilot project study to maximize its success in participation, organic waste diversion, and compost production. It is estimated the pilot project study will take approximately six months. The County has retained HDR Engineering, Inc. as its Solid Waste Management Consultant, which includes evaluating the County's organic waste management, collection, and processing.

Deliverables and Milestones:

- Pilot Project Study Final Report, Recommendations, and Next Steps
- Complete the pilot project study within six months from Notice to Proceed
- Identify key steps to implement program components during the grant term

Task 3: Formalize Partnerships

The County has confirmed Daly Organics, Smart Recycling, and HDR Engineering, Inc. are ready and willing to support this Project. Daly Organics will receive and process the diverted organic materials into compost products. Smart Recycling will perform curbside organics collection services for residents and businesses. HDR Engineering, Inc. will perform the Pilot Project Study.

Deliverables and Milestones:

- Execute Compost Processing Contract with Daly Organics
- Execute Organic Waste Collection Services Contract with Smart Recycling
- Initiate Pilot Project Study with HDR Engineering, Inc.
- Divert Organic Waste to Daly Organics on a weekly basis
- Implement curbside collection programs for at least 200 residential homes and five commercial businesses

Task 4: Community Outreach Plan

Education will be paramount to the pilot project's success. The County plans to utilize educational materials such as pamphlets and printed materials, and digital infomercials featuring "Rerun" the County's well-known recycling mascot, and the debut of "Callie the Compost Bin". Mailers to educate residents on the new organics initiative and an invitation to sign up for a training session to be given a free countertop organics bin will be sent out throughout the pilot project to increase participation. More advanced education tools will include formative presentations hosted at local libraries, community meetings, and virtual webinars.

Deliverables and Milestones:

- Implement County-wide Education and Outreach Program with a specific focus on St. Helena and other underserved communities
- Outreach to a total of 2,500 residential homes, with at least 50% belonging to an underserved community

Task 5: Collection Center Improvements

The County Collection Centers will be used as organic waste drop-off locations. Residents can drop off organic waste for free at participating Collection Centers. Community compost collection containers will be installed at multiple centers. During the residential, commercial, and school organics collection programs, organic waste will be collected by Smart Recycling and sent to a centrally located, permitted transfer station to be consolidated then hauled to Daly Organics. Collection bins will be purchased to provide residents an avenue to discard organic waste at the Collection Centers, where currently, residents can bring recyclables and trash. The collection bins will be two-cubic yard commercial dumpsters. Informative signage for the community bins will display acceptable and unacceptable materials to be placed in the compost bins. Other signage will display the benefits of composting as opposed to sending organic waste to the landfill. The dumpsters will allow ease in the collection of organic waste via a front-load collection truck. The County will also purchase an aerobic composter to be installed at one of the Collection Centers or at a participating partner location.

Deliverables and Milestones:

- Purchase and Install Commercial Dumpsters at Collection Centers
- Purchase and install aerobic composting unit
- Create and Install Organics-Specific Signage
- Develop Organics Drop-off Locations onsite at minimum of four Collection Centers

Task 6: Residential Drop-Off Program

Small home compost bins will be distributed to residents who participate in educational composting presentations and events. Presentations will be held at local libraries and other public places as well as through virtual sessions. Once the resident receives their certificate signifying completion of training and successful passing of a short corresponding exam, they will be awarded a countertop compost bin to collect and store their food waste at home. The countertop bins provide a convenient method to divert food waste and transport it to the Collection Centers.

Deliverables and Milestones:

- Distribute countertop compost bins to residents
- Gain at least 500 residential homes participating in the Organics Drop-Off Program throughout the grant term (in addition to 100 residential homes participating in the curbside collection program – Task 8)

Task 7: Compost Product Marketing Campaign

To help promote the compost produced from this Pilot Project, the County will develop and implement a marketing campaign specifically targeting local agricultural producers such as farmers and community gardens.

Deliverables and Milestones:

- Promote Compost products to at least twelve agricultural producers located in the County
- Distribute at least 50% of compost produced to at least three agricultural producers located in the County

Task 8: Residential Curbside Collection Program

Beaufort County will partner with Smart Recycling to transport organics from residential homes to a centrally located, permitted transfer station. From the transfer site, the material will be transported in bulk to the composting facility operated by Daly Organics. To facilitate the curbside composting Pilot Project, the County would like to provide curbside collection bins to interested communities. Communities who opt-in to the program will receive the curbside bins. Such communities will also receive training regarding what is allowable in their bins. Smart Recycling will monitor the bins to prevent contamination and provide training when needed.

Deliverables and Milestones:

- Develop Organics Only Collection Routes
- Distribute Curbside Collection Bins to Residential Homes
- Enroll at least 200 residential homes in the curbside collection program

Task 9: Commercial Businesses Collection Program

Through the new Green Business Program, businesses that recycle plastic and glass and divert their food waste will be awarded the honor of being a certified Beaufort County Green Business.

Deliverables and Milestones:

- Develop Green Business Program for commercial participants
- Award at least five commercial businesses as certified Beaufort County Green Businesses

Task 10: School Collection and Education Program

The County will integrate the pilot project into the local schools. This involves providing educational materials, organics collection bins, and hauling services.

Deliverables and Milestones:

- Formalize partnership with school(s) to implement organics education and collection services
- Implement organics education and collection services to at least one local school

IV. COLLABORATORS

The County will formalize multiple partnerships to help promote this Pilot Project and encourage its success.

1. Daly Organics will be the contracted composting facility to receive organic materials. Contact: Madison Daly (Owner); 1465 Bellinger Hill Rd, Hardeeville, SC 29927; (912) 657-7013.
2. Smart Recycling and Compost Now will be the partners who will engage local businesses and assist in the curbside pickups of organic waste. They will provide assistance in the following areas in addition to collection services: education efforts, increasing participation, and contamination prevention through driver inspections

Smart Recycling Contact: Meghan E. McGill; 3973 Ashley Phosphate Road Suite 430 North Charleston, SC 29418; (888) 304-6912;
<mailto:info@smartrecyclingus.com>

3. HDR is the County's Solid Waste Management Consultant and will perform the Pilot Project Study. Contact: Philip Westmoreland, PE; HDR; 440 S Church St Suite 1200, Charlotte, NC 28202; (704) 338-6743; Philip.Westmoreland@hdrinc.com

The following potential partners were identified. The County plans to coordinate with and initiate additional partnerships as necessary to maximize the Pilot Project's success.

4. Don't Waste Food SC provides funding and resources to use in the efforts of food diversion outreach. Beaufort County is a Don't Waste Food Ambassador.
5. Local municipalities and schools will be coordinated to implement the Green Business Program and school organics education and outreach programs.

6. The County routinely works with local environmental nonprofit groups such as the Coastal Conservation League, Port Royal Sound Foundation, Beaufort Conservation District, and Carolina Recycling Association. The County also partners with Green Steps Schools, Clemson Extension, and Keep Beaufort County Beautiful- a Keep America Beautiful affiliate. All partners will be engaged to assist with the organic waste diversion and composting outreach activities, as well as with the compost product marketing and use efforts.

V. EVALUATION

Beaufort County's Solid Waste & Recycling Department tracks residential solid waste disposal and diversion. The data is shared annually with SC DHEC in accordance with the state-statute reporting requirements. Therefore, the baseline data of solid waste that is disposed of in the landfill and the organic waste that is disposed of via boiler fuel has been tracked and calculated and is regularly tracked and reported. That baseline data will be used to measure the effectiveness of the proposed pilot project. All material sent to be composted from Collection Centers will be weighed and tracked. The number of hauls, the amount of material, and the centers from which each is collected will be analyzed. This data will assist the Project in moving forward to understand where more efforts are needed and what techniques are most successful.

Through Monthly Progress Reports, the County will provide the following information:

- The number of participants reached through the education and outreach activities
- The number of participants belonging to underserved communities
- The tonnage of organic waste diverted through the drop-off and collection programs
- The cubic yards of compost produced as a result of this Project
- The quantity and location of compost used by agricultural producers

VI. SELF-SUSTAINABILITY

The County intends to continue several components of this Project after the grant term has ended. The educational materials developed as part of this Project can be used for several years to come. Local State grants will assist in maintaining and expanding the Project and its funding. The County's enterprise fund will also assist in keeping these efforts ongoing for the future.

Once the Project is initiated, it will be a self-sustaining project as the Convenience Centers will be available for residents to dispose of their organic waste. The countertop kitchen bins and organics collection dumpsters will be used for their lifespan, which is expected to be over ten years.

This Project will help Counties of similar size evaluate, develop, and implement an organics diversion pilot project and better understand their ability to divert organic waste to produce compost and contribute to improving soil health, water quality, and air quality. The County will also attempt to share this process and successes by speaking at conferences and events and sharing project planning materials with interested parties.

Examples of the County's organics outreach and education materials and programs are on the following pages.

Get a compost bin dirt cheap.



Beaufort County Solid Waste and Recycling is offering The Earth Machine compost bins dirt cheap – only \$50 per container. That's 50 percent off!

How can you get a compost bin?

For questions or to order a bin, please call 843-255-2736 or visit beaufortcountysc.gov/solid-waste-and-recycle/recycle-and-compost/compost.html.

The Earth Machine compost bin includes:

- An 80-gallon capacity drum;
- Easy-snap assembly;
- Vertical and horizontal vents;
- A twist-locking lid;
- A harvest door for easy compost removal; and
- Durable components made from recycled material that are BPA free.

FUNDED BY



NOTE: Bins are provided at this discounted price through a grant from the S.C. Department of Health and Environmental Control.

Benefits of Backyard Composting

- Composting diverts organic waste from landfills. About 30 percent of South Carolina's waste comes from yard trimmings.
- Compost can improve soil and prevent erosion.
- Backyard compost can help you save money by reducing the need for fertilizer.
- Compost improves moisture retention in soil which saves water.
- Compost is rich in nutrients which can be used in gardens, lawns and flower beds.

OR-1200 7/22

For more information about starting your backyard composting journey please view the [Composting Tutorial](#)



What goes in your backyard compost?

CARBON MATERIALS (Browns)	NITROGEN MATERIALS (Greens)
 Shredded cardboard  Dryer and vacuum cleaner lint  Crushed egg shells  Fireplace or wood ash (no coal ash)	 Bread & grains  Coffee grounds & paper filters  Fruits (cooked or uncooked - limit citrus)
 Hay and straw  Pinestraw (small amounts)  Nut shells  Household plants and used potting soil	 Green grass clippings  Green leaves  Green shrub prunings  Hair and fur
 Old brush, shrub trimmings and prunings  Paper towels and towel rolls  Saw dust and wood chips (untreated)	 House plants  Kelp or seaweed  Manure from chickens, rabbits, cows, horses (herbivores)
 Old flowers  Tea bags (with tags)  Vegetables (cooked or uncooked)	 Vegetables (cooked or uncooked)

NOTE: Always mix food waste into the middle of the pile to avoid odors and pests.

Compost it. Don't waste it.

A Guide for
Beaufort County Residents



**You've probably heard
about it, but what exactly
is composting?**

Composting is nature's way of recycling. Microorganisms break down organic material – like yard trimmings and food scraps – into a dark, crumbly, soil-like amendment that can be used in your garden and on your lawn.

Composting is a simple way to help protect the environment and save money at the same time.



COMPOSTING 101

**JOIN BEAUFORT COUNTY
RECYCLING COORDINATOR
TO LEARN ABOUT DIVERTING
WASTE AND BACKYARD
COMPOSTING.**

DATES/LOCATIONS

**3/5/22- Bluffton Library @ 2pm
120 Palmetto Way**

**3/9/22- Hilton Head Library @ 10am
11 Beach City Rd**

**3/18/22- St Helena Library @ 2pm
6355 Jonathan Francis Senior Rd**

**4/5/22- Beaufort Library @ 10am
311 Scott St**

**4/6/22- Lobeco Library @ 4:30pm
1862 Trask Pkwy**



FOR MORE INFORMATION PLEASE CONTACT VICTORIA HOFFMAN

VICTORIA.HOFFMAN@BCGOV.NET

(843) 255-2823

**WWW.BEAUFORTCOUNTYSC.GOV/
SOLID-WASTE-AND-RECYCLE**

**ALL AGES
WELCOME!**

ADVANTAGES

Composting is easy to do at home and great for your plants. Attend to learn more!

DON'T WASTE FOOD SC

Composting is a great way to divert waste from the landfill. Join us to learn more about what you can do to help with this state-wide initiative.

DISCOUNTED BINS!

Bins are available for purchase at a discounted rate of \$50!

FREE GIFT!

Receive a complimentary reusable bag for attending!



Project Abstract Summary

This Project Abstract Summary form must be submitted or the application will be considered incomplete. Ensure the Project Abstract field succinctly describes the project in plain language that the public can understand and use without the full proposal. Use 4,000 characters or less. Do not include personally identifiable, sensitive or proprietary information. Refer to Agency instructions for any additional Project Abstract field requirements. If the application is funded, your project abstract information (as submitted) will be made available to public websites and/or databases including USAspending.gov.

Funding Opportunity Number

USDA-NRCS-NHQ-CFWR-23-NOF00001235

CFDA(s)

10.935

Applicant Name

County of Beaufort

Descriptive Title of Applicant's Project

Beaufort County- Organics Diversion Pilot Program

Project Abstract

Beaufort County is requesting \$273,600 from USDA grant funds and is committed to matching 25%, or \$68,400 from their Solid Waste and Recycling Program budget to develop and implement an Organics Diversion Pilot Project. The Pilot Project is multi-faceted and will begin with a study to identify project needs, schedule, and limitations. The County will formalize partnerships with County stakeholders and industry experts to implement this Pilot Project. The key components of this Pilot Project are: 1) education and outreach to disadvantaged communities; 2) developing public organics drop-off centers; 3) creating a robust compost product marketing campaign; and 4) expanding the project to include curbside collection programs. The County currently has a voluntary backyard composting program available to its residents, complete with a compost-specific outreach and educational program. This Pilot Project is the next step for the County to increase their organic waste diversion from landfill, and produce and use nutrient-rich compost product on their County agricultural lands.

Education and outreach efforts will span all of Beaufort County. There are a variety of communities within the County that are identified as disadvantaged. The education and outreach efforts will provide educational tools and resources as well as knowledge to residents on the practices to follow. Efforts will encompass all age groups and demographics. Drop-off and curbside collection programs, as well as the compost product marketing campaign will also target the disadvantaged communities of the County to provide equitable access to all residents, businesses, and schools. St. Helena is ranked over the 90th percentile for expected agricultural economic loss, so special attention will be given to this community during the Pilot Project.

The Pilot Project meets the following grant objectives: 1) diverting residential and commercial food waste from landfills; 2) generate compost; 3) increase access to compost for agricultural producers; 4) reduce reliance on, and limit the use of, fertilizer; 5) improve soil quality; and 6) encourage waste management business development. It also supports and incorporates the following priority grant considerations: 1) addressing environmental justice and climate change; 2) incorporate plans to make compost easily accessible to agricultural producers; 3) include a robust plan that describes collaboration with multiple partners; and 4) provides a detailed plan for project monitoring, evaluation, and documentation.

The County has included letters of commitment from the following partners: Daly Organics, Smart Recycling, and HDR Engineering, Inc. Each partner has a critical role in implementing the Pilot Project and aiding to the project's overall success. Additional partnerships will be identified throughout the project and brought onto the team as necessary to support the project. The County is committed to this project and will use these funds to initiate the Pilot Project. The County plans to continue these efforts through funding from their Solid Waste and Recycling Program budget.

BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 02/28/2025

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. USDA-NRCS-NHQ-CFWR-23-NOF00001235 Composting and Food Waste Reduction (CFWR) Pilot Project	r 10.935	\$	\$	\$ 273,600.00	\$ 68,400.00	\$ 342,000.00
2.						
3.						
4.						
5. Totals		\$	\$	\$ 273,600.00	\$ 68,400.00	\$ 342,000.00

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	USDA-NRCS-NHQ-CFWR-23-NOF00001235 Composting and Food Waste Reduction (CFWR) Pilot Project				
a. Personnel	\$	\$	\$	\$	\$
b. Fringe Benefits					
c. Travel					
d. Equipment	95,000.00				95,000.00
e. Supplies	128,600.00				128,600.00
f. Contractual	50,000.00				50,000.00
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)	273,600.00				\$ 273,600.00
j. Indirect Charges					\$
k. TOTALS (sum of 6i and 6j)	\$ 273,600.00	\$	\$	\$	\$ 273,600.00
7. Program Income	\$	\$	\$	\$	\$

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SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program		(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8.	USDA-NRCS-NHQ-CFWR-23-NOF00001235 Composting and Food Waste Reduction (CFWR) Pilot Project	\$ 68,400.00	\$	\$	\$ 68,400.00
9.					
10.					
11.					
12. TOTAL (sum of lines 8-11)		\$ 68,400.00	\$	\$	\$ 68,400.00

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 186,800.00	\$ 50,000.00	\$ 45,600.00	\$ 45,600.00	\$ 45,600.00
14. Non-Federal	\$				
15. TOTAL (sum of lines 13 and 14)	\$ 186,800.00	\$ 50,000.00	\$ 45,600.00	\$ 45,600.00	\$ 45,600.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program		FUTURE FUNDING PERIODS (YEARS)			
		(b)First	(c) Second	(d) Third	(e) Fourth
16.	USDA-NRCS-NHQ-CFWR-23-NOF00001235 Composting and Food Waste Reduction (CFWR) Pilot Project	\$ 86,800.00	\$ 0.00	\$ 0.00	\$ 0.00
17.					
18.					
19.					
20. TOTAL (sum of lines 16 - 19)		\$ 86,800.00	\$ 0.00	\$ 0.00	\$ 0.00

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges:	Organics Diversion Pilot Program
22. Indirect Charges:	
23. Remarks:	The applicant matching funds of \$68,400 will be allocated to the second year of the grant term to cover hauling and composting costs of the diverted organic materials.

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Budget Narrative File(s)

* **Mandatory Budget Narrative Filename:**

Add Mandatory Budget Narrative

Delete Mandatory Budget Narrative

View Mandatory Budget Narrative

To add more Budget Narrative attachments, please use the attachment buttons below.

Add Optional Budget Narrative

Delete Optional Budget Narrative

View Optional Budget Narrative

Beaufort County Organics Diversion Pilot Project Budget Narrative

The total estimated pilot project cost is \$342,000 which is comprised of \$273,600 grant funds to purchase an aerobic digester (\$95,000), generate education and outreach materials (\$65,600) purchase collection materials to kickstart the pilot program (\$63,000), and perform a Pilot Project Study through a third-party consultant (\$50,000). The matching funds of \$68,400 will be used for additional education and outreach materials (\$16,400) and organics hauling costs (\$52,000).

The County is requesting \$273,600 from the USDA to assist in the funding of the creation of an Organics Diversion Pilot Project. The County agrees to cost share 25% of the requested amount, or \$68,400 using the County's Solid Waste and Recycling Program funds. The Solid Waste & Recycling Department operates with an enterprise fund. Surplus funds from each year have been designated for sustainable projects that will reduce waste sent to the landfill. These funds will allow for the pilot program to continue beyond the grant and be self-sustaining.

GRANT REQUESTED BUDGET NARRATIVE

Personnel – N/A

Fringe Benefits – N/A

Travel – N/A

Equipment – To complete objective #3, an Aerobic Composter is required. The EcoRich Elite II Composter, ER-2000, which can process up to 2,000 pounds of organics per day, or equivalent equipment will be purchased at \$95,000.

Supplies –

To complete objectives #1, #2, #5, #6, and #14, education and outreach materials are required. These education and outreach materials in total cost \$65,600 and include the following:

<u>Material</u>	<u>Description</u>	<u>Unit Cost</u>	<u># of Units</u>	<u>Total Cost</u>
Mascot Design	Graphic Design of composting mascot.	\$3,500	1	\$3,500
Mascot Materials	Materials associated with the Mascot Design.	\$3,500	1	\$3,500
Pamphlets	Generate educational material for distribution.	\$2.00	2,500	\$5,000
Flyers	Generate educational	\$2.00	2,500	\$5,000

	material for distribution.			
Educational Videos	Generate educational material for distribution.	\$2,500	6	\$15,000
Graphic Design	Generate educational material for distribution.	\$2,000	5	\$10,000
Product Marketing Materials	Generate educational material for distribution.	\$5.00	1,000	\$5,000
Stand Banners	Advertise educational material.	\$600	31	\$18,600
Total Education and Outreach Materials				\$65,600

To complete objectives #5, #6, #7, #8, compost collection dumpsters and bins are needed. These collection materials in total cost \$63,000, and include the following:

Collection Type	Description	Unit Cost	# of Units	Total Cost
Counter-Top Compost Bins	Free to residents to promote pilot program and for collection.	\$30	200	\$6,000
2-CY Dumpsters	Organics collection at collection centers.	\$2,000	4	\$8,000
Dumpster Locks	Provided for safety and to prevent trespassing.	\$100	4	\$400
Compost Bins for Schools	Supply compost bins to schools for collection through pilot program.	\$1,800	27	\$48,600
Total Collection Materials				\$63,000

Contractual – To complete Task 2, the County has retained HDR Engineering, Inc. (HDR) as its Solid Waste Management Consultant, which includes evaluating the County's organic waste management, collection, and processing. HDR will help design the pilot project study to maximize its success in participation, organic waste diversion,

and compost production. HDR will complete a Pilot Project Study Final Report, Recommendations and Next Steps within six months from Notice to Proceed and help identify key steps to implement the composting program components during the grant term. The total cost for this contractual service is \$50,000. A breakdown of this cost includes:

- HDR Consultant: Data Analysis & Pilot Design, \$175/hour x 275 hours for 6-month period = \$48,125
- HDR Consultant: Travel for site visits/meetings, 500 miles RT @ \$0.55 per mile = \$275
- HDR Consultant: Lodging for site visits/meetings, 2 nights @ \$200/night x 2 rooms x 2 trips = \$1,600

Construction – N/A

Other – N/A

Indirect – N/A

NON-FEDERAL MATCHING FUNDS BUDGET NARRATIVE

The County agrees to cost share 25% of the requested amount, or \$68,400, using the County's Solid Waste and Recycling Program funds. The Solid Waste and Recycling Program has an annual operating budget of \$9,000,000 with approximately \$150,000 in funds allocated to special projects and programs, which the proposed organics diversion program would fall under. This is sufficient budget to match the necessary funds for the grant.

Personnel – N/A

Fringe Benefits – N/A

Travel – N/A

Equipment – N/A

Supplies – To support Task 4, the County will provide additional education and outreach materials. Based on the \$2.00 per unit cost of these materials, the County will create and distribute an additional 8,200 outreach materials throughout the County.

<u>Material</u>	<u>Description</u>	<u>Unit Cost</u>	<u># of Units</u>	<u>Total Cost</u>
Pamphlets, Flyers, and Mailers	Generate educational material for distribution.	\$2.00	8,200	\$16,400

Contractual – To accomplish the goals for Task 6, the County will contract with a partner for organic materials hauling services. Estimated costs per pick-up of organic materials from the County's Collection Centers is \$250 per pick-up to haul to the off-site

composting location. The County plans to install organic materials collection bins at four Collection Centers. Pick-up will be at least weekly.

- Contracted Hauler: \$250 per pick-up x one (1) pick-up per week for one (1) year or (52) weeks x four (4) Collection Centers = \$52,000

Construction – N/A

Other – N/A

Indirect – N/A

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

* APPLICANT'S ORGANIZATION

County of Beaufort

* PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Prefix: * First Name: Middle Name:

* Last Name: Suffix:

* Title:

* SIGNATURE:

* DATE:

ATTACHMENTS FORM

Instructions: On this form, you will attach the various files that make up your grant application. Please consult with the appropriate Agency Guidelines for more information about each needed file. Please remember that any files you attach must be in the document format and named as specified in the Guidelines.

Important: Please attach your files in the proper sequence. See the appropriate Agency Guidelines for details.

1) Please attach Attachment 1	Letters of Commitment_Combin	Add Attachment	Delete Attachment	View Attachment
2) Please attach Attachment 2	Resumes_Combined 061423.pdf	Add Attachment	Delete Attachment	View Attachment
3) Please attach Attachment 3		Add Attachment	Delete Attachment	View Attachment
4) Please attach Attachment 4		Add Attachment	Delete Attachment	View Attachment
5) Please attach Attachment 5		Add Attachment	Delete Attachment	View Attachment
6) Please attach Attachment 6		Add Attachment	Delete Attachment	View Attachment
7) Please attach Attachment 7		Add Attachment	Delete Attachment	View Attachment
8) Please attach Attachment 8		Add Attachment	Delete Attachment	View Attachment
9) Please attach Attachment 9		Add Attachment	Delete Attachment	View Attachment
10) Please attach Attachment 10		Add Attachment	Delete Attachment	View Attachment
11) Please attach Attachment 11		Add Attachment	Delete Attachment	View Attachment
12) Please attach Attachment 12		Add Attachment	Delete Attachment	View Attachment
13) Please attach Attachment 13		Add Attachment	Delete Attachment	View Attachment
14) Please attach Attachment 14		Add Attachment	Delete Attachment	View Attachment
15) Please attach Attachment 15		Add Attachment	Delete Attachment	View Attachment

Daly Organics

June 8th, 2023

Victoria Hoffman
Public Works Project Coordinator
Beaufort County
100 Ribaut Road,
Beaufort, South Carolina 29902

Re: Letter of Commitment to Beaufort County's Food Waste Reduction and Composting Pilot Project

Dear Ms. Hoffman,

Daly Organics is pleased to support Beaufort County in its application to the United States Department of Agriculture (USDA) (NFO# USDA-NRCS-NHQ-CFWR-23-NOF00001235). As part of the project team, Daly Organics is prepared to offer our services to support the County's pilot project development and implementation to reduce food waste and produce compost product for agricultural producers.

Daly Organics is well qualified to perform the activities necessary to fulfill the goals of this pilot program, and its assigned role in food waste composting. Our experience is that Daly Organics is the fastest growing composting business in the Low country. With over three locations from Savannah, to Hardeeville to Mt. Pleasant, Daly Organics is well equipped to handle any composting job.

If the proposed project receives funding, Daly Organics commits to performing the services described in the grant application for the duration of the pilot project, as well as providing any staff and other resources necessary to meet this commitment. If you have any questions about our commitment to the proposed project, please contact me.

Sincerely,



Madison Daly
Owner

912-657-7013



3973 Ashley Phosphate Rd.
Suite 430
North Charleston, SC 29418
(888) 304-6912
info@smartrecyclingus.com
www.smartrecyclingus.com

June 7, 2023

Victoria Hoffman
Public Works Project Coordinator
Beaufort County
100 Ribaut Road,
Beaufort, South Carolina 29902

Re: Letter of Commitment to Beaufort County's Food Waste Reduction and Composting Pilot Project

Dear Ms. Hoffman,

SMART Recycling US, LLC is pleased to support Beaufort County in its application to the United States Department of Agriculture (USDA) (NFO# USDA-NRCS-NHQ-CFWR-23-NOFO0001235). As part of the project team, SMART Recycling is prepared to offer our services to support the County's pilot project development and implementation to reduce food waste and produce compost product for agricultural producers.

SMART Recycling is well qualified to perform the activities necessary to fulfill the goals of this pilot program, and its assigned role as food waste hauler. Our nine years of experience hauling food waste in the Southeastern United States makes us a great fit for this opportunity. Additionally, SMART has helped build, launch, and execute a residential drop off program in Charleston, SC which has not only been successful, but is in its second year and has quadrupled in size since its inception with several municipalities joining the program.

If the proposed project receives funding, SMART Recycling commits to performing the services described in the grant application for the duration of the pilot project, as well as providing any staff and other resources necessary to meet this commitment. If you have any questions about our commitment to the proposed project, please contact me.

Sincerely,

Meghan E. McGill

Meghan E. McGill
Accounting Manager



June 13, 2023

Victoria Hoffman
Public Works Project Coordinator
Beaufort County
100 Ribaut Road
Beaufort, SC 29902

Re: Letter of Commitment
Food Waste Reduction and Composting Pilot Project
USDA NFO# USDA-NRCS-NHQ-CFWR-23-NOFO0001235

Dear Ms. Hoffman,

HDR Engineering, Inc. of the Carolinas (HDR) is pleased to support Beaufort County in its application to the United States Department of Agriculture (USDA) (NFO# USDA-NRCS-NHQ-CFWR-23-NOFO0001235) for a Food Waste Reduction and Composting Pilot Project (Project). As part of the project team, HDR has been assisting Beaufort County with their Solid Waste Management needs since January 2023. Currently, HDR is conducting a financial rate study, evaluating the solid waste program, and evaluating Beaufort County's solid waste convenience centers.

HDR is well qualified to perform the Organics Waste Diversion Pilot Project Study and fulfill its assigned role as Solid Waste Consultant to Beaufort County. Our experience at more than 200 solid waste facilities includes more than 100 solid waste transfer and materials recovery facility projects, as well as several dozen organics collection and processing projects. These projects range from conceptual planning and programming, feasibility studies, permitting, schematic to final design, equipment procurement, and construction management.

If the Project receives funding, HDR is committed to providing the necessary staff to perform the services described in the grant application for the duration of the pilot project. HDR looks forward to supporting Beaufort County in this endeavor. If you have any questions about HDR's commitment to the proposed project, please contact me.

Sincerely,
HDR Engineering, Inc. of the Carolinas

Philip A. Westmoreland, PE
Project Manager

hdrinc.com

440 S Church Street, Suite 1200, Charlotte, NC 28202-2075
704.338.6700

Victoria Hoffman

(910) 330-3316

vasturgis@gmail.com

Professional Summary

Highly motivated Environmental Scientist with experience in a wide variety of fields in the environmental sector including both stormwater and solid waste management. History working in environmental compliance overseeing NPDES permits and RCRA policies. Excellent communication, written and interpersonal skills. Proven team leader with a track record in problem solving and effective project management. Corporate trained in customer service with ten years of experience.

Key Qualifications & Skills

- Project Management
- Environmental Planning
- Report/Technical Writing
- Regulations Compliance
- Communication/Public Speaking
- Teamwork & Leadership
- Budget Management
- Environmental Inspections
- NPDES, SWPPP Inspections
- Solid Waste Management

Education

University of Nevada, Las Vegas – *B.S. Earth & Environmental Science*

Experience

June 2023-current

Beaufort County Government, Beaufort, SC– *Solid Waste & Recycling Program Manager*

- Manages and oversees Solid Waste & Recycling operations for Beaufort County residential services.
- Plans, coordinates, and evaluates the functions in accordance with local, state and federal laws.
- Develops and recommends long and short-term department goals and objectives.
- Establishes, implements and reviews policies and procedures relative to the functions of solid waste collection, storage, transfer and disposal.
- Evaluated work products, methods, and procedures.
- Manages and participates in the development of the department work plan and assigns work activities, projects and programs; monitors work flow.
- Participates in hiring process; directs, trains and supervises staff engaged in solid waste and recycling regulation activities.
- Mediates and resolves public complaints and concerns about the performance and service of waste services.
- Confers with legal counsel, Public Works Director and Assistant Public Works Director-Environmental to interpret and resolve procedures concerning ordinances, laws and regulations.
- Prepares and presents comprehensive and technical reports and briefings to the Board of Public Facilities Committee and County Council.
- Serves as liaison for and coordinates solid waste activities with municipalities and the solid waste industry within Beaufort County.
- Monitors new legislation or statutes, and regional laws, regulations and judicial decisions that may impact solid waste management, and provides recommendations on proposed legislation to appropriate County management.

June 2022-June 2023

Beaufort County Government, Beaufort, SC – *Public Works Project Coordinator*

- Writing proposal requests for Solid Waste & Recycling and other Public Works projects.

- Reviewing project plans to ensure compliance with county ordinances including culvert installation and other stormwater measures.
- Conducting research for various special projects and solid waste & recycling solutions.
- Inspecting projects and verifying compliance of stormwater protocols and other ordinances.
- Making recommendations and solving problems for Solid Waste & Recycling programs.
- Accepting, processing, issuing and inspecting encroachment permits for residential and commercial projects along county roadways.
- Knowledge of Public Works Ordinances including Solid Waste & Recycling and Stormwater mandates.
- Planning and overseeing special projects within Public Works including budget confirmation, proposal requests and contract delegation.
- Troubleshooting issues pertaining to procurement services & established contract timelines.
- Reviewing submitted proposals pertaining to Solid Waste & Recycling, and Disaster Recovery Services.
- Collaboratively preparing federal grant proposals for solid waste projects.

March 2021-June 2022

Beaufort County Government, Beaufort, SC – *Recycling Coordinator*

- Possess knowledge of federal and local Solid Waste & Recycling laws and ordinances.
- Responded to resident questions regarding solid waste and recycling procedures and protocols.
- Managed budget and allotment of state allocated grant funds.
- Created and coordinated programs pertaining to composting, recycling and managed corresponding schedules.
- Communicated information to the public through media outlets, public meetings and outreach events.
- Successfully prepared grant proposals and wrote corresponding reports.
- Regularly engaged in public speaking.
- Assessed recycling issues and provided solutions to upper management.
- Researched waste diversion and troubleshooted solutions.
- Utilized knowledge of assets and solid waste & recycling budget management.
- Disseminated information to the Solid Waste & Recycle Board & “Keep Beaufort County Beautiful” Board.

May 2018-March 2021

SWCA Environmental Consultants, Las Vegas, NV – *Environmental Planner*

- Supervised as Lead Environmental Inspector on active construction projects.
- Managed timeline of construction activities with corresponding environmental protocols.
- Maintained 100% environmental compliance on multi-billion-dollar clean energy project (White Hills Wind, NextEra).
- Researched environmental impacts for phase 1 site assessments.
- Provided logistics support for a variety of projects.
- Received and processed public comments regarding environmental concerns.
- Presented projects to federal agencies and the public during scope meetings.
- Prepared technical documents and reports.

Certifications/Training

Managing Composting Programs (SWANA)

Certified Stormwater Plan Reviewer Course (Clemson Extension)

Certified Recycling Professional (SC DHEC)

NEPA Streamlining (SWCA)

40 hr. HAZWOPER

Environmental Compliance on Construction Projects (Southern Gas Association)

EMPLOYMENT HISTORY

DATES

Beaufort County**Assistant Public Works Director – Environmental**

APRIL 2023 – PRESENT

- Responsible for all local, state, and federal compliance for Solid Waste and Recycling and Stormwater Programs.
- Oversees each programs Capital projects and budgets (\$20 million total).
- Works directly who act as extensions to the County to meet our goals.
- Responsible for reporting to three County Boards.

Stormwater Manager

DECEMBER 2020 – APRIL 2023

- Responsible for implementing the organizational goals of the Stormwater Management, Regulatory, and Infrastructure divisions under the Public Works Department
- Ensures compliance with all State and Federal Stormwater regulations.
- Actively involved in the community with the Public, other Municipalities, and other local, State, and Federal programs/departments.
- Oversees work of consultants who operate as extensions of the department to meet goals. This includes those who manage aspects of the drainage system, Capital Improvement Projects, compliance with state permits, and meeting all budgetary standards at a local, state, and federal level.
- Assist and present reports and recommendations to the Stormwater Utility Board, and other committee and Council meetings as necessary.

MS4 Coordinator

MARCH 2018 – DECEMBER 2020

- Responsible for coordinating compliance with the Beaufort County SMS4 Permit, including writing annual report for SCDHEC.
- Assisted with creation, then implementation, and oversight of the Beaufort County Comprehensive Water Quality Monitoring Program.
- Assisted and supported upper management and other departments as necessary to ensure Beaufort County Stormwater programmatic success.
- Analyzed MUNIS data to report monthly to Stormwater Utility Board.
- Active with public presentations to educate a wide audience of individuals on the Beaufort County MS4 Program.
- Participated in the Emergency Operations Center during hazardous weather incidents.

Department of Health and Environmental Control

JUNE 2017 – MARCH 2018

Environmental Health Manager I

- Participated in Law Enforcement program related to shellfish program activities, as well as other environmental health activities regulated by the State of South Carolina.
- Assisted in the implementation of shellfish growing area water sampling program. Data entry of over 250 water samples per month.
- Assisted in the implementation of the state shellfish sanitation inspection program. Analyzed data for potential point source pollution in waterways.
- Transported and assisted stream monitoring personnel in the collection of data.
- Maintained all shellfish program equipment and compiled all necessary administrative and shellfish program reports.

National Marine Fisheries Service/Riverside Technology Inc.

February 2014-JUNE 2017

Observer Coordinator

- Promoted from Fisheries Observer II to Observer Coordinator to work directly with Program Manager, senior staff, and managed 26 individuals in the observer core. Worked directly with

NMFS senior scientists, Office of Law Enforcement, U.S. Coast Guard, the commercial fishing industry, administrative personnel and additional NMFS divisions.

- Tracked observer deployment and entered all data within pelagic longline database using Oracle software. Acted as primary contact to address sampling, deployment issues, data management, and assist with trip debriefings.
- Analyzed data to write monthly audits and quarterly protected species interactions reports.

CERTIFICATIONS

- Certified Erosion Prevention and Sediment Control (CEPSCI) – April 2018
- Certified Stormwater Plan Reviewer (CSPR) – November 2018
- Master Pond Manager – Clemson Extension – October 2018
- Post Construction BMP Inspector – Clemson Extension – May 2019
- OSHA Hazardous Materials II – January 2020
- FEMA IS -100, 200, 300, 400, 700, 800

MEMBERSHIPS

- South Carolina Association of Stormwater Managers (SCASM)
- South Eastern Stormwater Association (SESWA)
 - Board of Directors January 2023 - Present
- Region 4 International Erosion Control Association (IECA)
 - Board of Directors May 2023 - Present
- Association of Public Works Association (APWA)
- Junior Service League of Beaufort

PRESENTATIONS

- IECA Region 4 Conference – May 2019
- IECA National Conference – Feb 2020
- SCAC Barret Lawrimore Awards – April 2022
 - Winner of Barret Lawrimore Award for South Carolina
- IECA Region 4 Conference – May 2022
- SCASM – June 2022
- StormCon – Sept 2022
- SESWA – October 2022

EDUCATION

Coastal Carolina University

DECEMBER 2010

Degree Earned: Bachelor of Science in Marine Science



Philip Westmoreland

PE

EDUCATION

BS, Agricultural Engineering

REGISTRATIONS/CERTIFICATIONS

Professional Engineer - NC #31008, SC

OFFICE LOCATION

Charlotte, NC

TENURE (HDR/INDUSTRY)

24 / 25

Philip has over 20 years of experience in both municipal solid waste and construction and demolition landfill design, as well as construction quality assurance and quality control. His responsibilities include preparation of permit applications for submittal to state agencies; project design; coordination with other engineering disciplines; preparation of plans and specifications; construction coordination; project scheduling; cost estimating; and construction management. He has performed landfill engineering work for clients in North Carolina, South Carolina and Virginia and has also provided project management for engineering and construction contract management projects at various landfills.

RELEVANT EXPERIENCE

Gaston County, Hardin Landfill Expansion, Dallas, NC

Certifying Engineer. Provided Construction Quality Assurance (CQA) services for the construction of a new 13-acre expansion at the Gaston County Municipal Solid Waste Landfill. Construction included excavation, structural fill, clay liner, geosynthetics and operational soil. Provided over site of the CQA field staff and contractor's testing program. Certifying engineer for the CQA Report.

Charah Inc., Moncure Mine Reclamation Permitting & Design, Moncure, NC

Senior Project Engineer. The project consisted of reclaiming a 330-acre mine property with a 11.5 million ton capacity, 145-acre lined CCP structural fill. The facility design included leachate storage tanks, a 2-mile railroad spur and a lined unloading area with underground storage for contact water. Work includes permitting and design of composite lined containment systems, leachate collection and handling, stability analyses, operations plan development and stormwater management following the North Carolina Coal Ash Management Act of 2014 requirements and EPA promulgation of the CCR Rules. Permitting included simultaneous coordination through the state mining agency(NCDEMLR), the Division of Waste Management (NCDWM), the Division of Water Quality (NCDWQ), the US Army Corps of Engineers (USACE), as well as the local municipality.

Bees Ferry Landfill Permitting, Design, and Construction, Charleston County, SC

Project Engineer and Construction Contract Manager. The site is comprised of over 300 acres, and the work consists of preliminary design and planning, all permitting, development

of construction plans for the lined expansion, as well as piggybacking over old waste. He prepared the permit modification to reduce the footprint of the unlined MSW unit in preparation for the permit application for the 80 acre lined MSW unit adjacent and on top of the unlined unit. Performed contract administration for Cell 1 and was the certifying engineer of the Cell 1 Certification Report that was submitted to SCDHEC to obtain the permit to operate. Following Cell 1, was the design engineer for Cell 2 and performed contract administration for Cell 2. Performed contract administration for Phase 2 Unlined Landfill Closure and was the certifying engineer of the Closure Certification Report that was submitted to SCDHEC.

Twin Chimneys Landfill, Greenville County, SC

Project Engineer. HDR prepared construction documents (drawings, technical specifications, and bid documents) for infrastructure development and development for waste disposal (45 acres of municipal solid waste and 20 acres for construction and demolition waste) at the Twin Chimneys Landfill. Infrastructure development included roads, stormwater, site grading, leachate management system, yard waste pad, white goods area, citizens transfer station, administration offices, scale house and scales education center, maintenance shops and yard, and groundwater monitoring system. We also prepared the construction documents for a 17 acre municipal solid waste unit in 2017 followed by construction in 2017 through 2018.



Emily Tucker

PE

EDUCATION

ME, Environmental Engineering: BS,
Environmental Engineering

REGISTRATIONS/CERTIFICATIONS

Professional Engineer - NC #051544

OFFICE LOCATION

Charlotte, NC

TENURE (HDR/INDUSTRY)

5 / 7

Emily specializes in solid waste facility planning, reporting, and compliance. Her area of expertise is in landfill and solid waste facility design and permitting, solid waste management planning, and environmental compliance. She has worked on site layout and building designs for new transfer station sites and landfill facilities located throughout the country. In addition to design work, Emily is heavily involved in solid waste planning for municipalities and Counties. She has been a key component in generating and/or updating multiple Solid Waste Management Plans, in part, to help entities follow State regulatory requirements. She also has significant experience with permitting, design, construction observation and engineering certification documents necessary to obtain approval from regulatory agencies.

RELEVANT EXPERIENCE

Rowan County, Title V Permitting Assistance, Salisbury, NC

Staff Professional. HDR is providing professional engineering services to the Rowan County Solid Waste Division in designing their landfill's Gas Collection and Control System (GCCS) Plan. Emily assisted in designing the site for a 15-year system operating life as well as its gas well system layout. She also assisted in writing the technical report submitted to the County.

Gaston County, Hardin Landfill Expansion, Dallas, NC

Staff Engineer. Emily conducted daily construction quality assurance (CQA) services for the construction of a new 13-acre expansion at the Gaston County MSW Landfill. She oversaw all aspects of construction, including structural fill excavation, clay placement and testing, and installation of both the geosynthetic liner and operational cover systems. She was also in charge of processing pay requests, holding monthly construction meetings, and reviewing any field design changes. The phase was constructed in two parts and she played a key role in generating both Certification Reports, which were both approved by NCDEQ and so the phase is currently operational.

Roanoke Valley Resource Authority (RVRA), Smith Gap Regional Landfill, Roanoke, VA

Staff Professional. Emily assisted RVRA in determining the cost of material to convert the current railroad path hauling municipal waste to the Smith Gap Regional Landfill, to a roadway for truck hauling instead. This analysis involved

determining appropriate road aggregate materials and guardrail placement for the five-mile path to meet accordance with the Virginia Department of Transportation (VDOT) standards.

Winston-Salem/Forsyth Counties Utilities Commission, Concrete, Asphalt, & Brick (CAB) Area Design, Forsyth County, NC

Staff Professional. HDR was contracted by the City of Winston-Salem to design a concrete, asphalt, & brick (CAB) recycling pad at its Hanes Mill Road Landfill. Emily helped size and design erosion & sediment control (ESC) measures, including but not limited to clean and dirty water diversion dikes, a sediment trap with skimmer and baffles, culvert and slope drain. The pad and its corresponding ESC measures were permitted by the North Carolina Department of Environmental Quality (NCDEQ) and is currently operational.

City of Greensboro, Phase III 2019 Permit Amendment Application, NC

Staff Professional. The Permit to Operate (PTO) for Phase III of the White Street Landfill needed renewal based on NCDEQ regulations. (The last amendment occurred in 2014). Emily updated the application's required sections to reflect current operations and planning at the Landfill. She also used AutoCAD to update figures with the latest topography and fill plan. The permit amendment application was submitted and accepted by NCDEQ.



Cindy Liles QISP, CAPP

EDUCATION	REGISTRATIONS	PROFESSIONAL MEMBERSHIPS	INDUSTRY TENURE
MS, Environmental Engineering, California State University, Fullerton BS, Environmental Sciences, University of California, Riverside	Engineer-in-Training (EIT) #176813 Qualified Industrial Stormwater Practitioner (QISP) #00176 Certified Air Permitting Professional (CAPP) #1106	Solid Waste Association of North America (SWANA) California Resource Recovery Association (CRRA) Association of Compost Producers	8 Years

Cindy has seven years of experience working with the waste industry. She started off her career implementing organics separation and compost workshops at her University, and has since worked on over 175 waste projects. She has worked on over 75 waste-related facilities within California namely Material Recovery Facilities, Transfer Stations, and Organic Processing Facilities and has helped secure the necessary permits to add over 1.5 million tons of annual waste processing capacity in the state. This includes work on the design, permitting, development, and/or environmental compliance of over a dozen organic waste processing facilities and several feasibility studies for both the public and private sectors. She also helped secure several grants amounting to over \$5 million for compost infrastructure and research, and over \$10 million for renewable energy projects.

RELEVANT EXPERIENCE

Z-Best Composting, Air Permitting Consulting Services, CA

HDR is managing the air permit compliance efforts for Z-Best Composting facility's existing operations and technology upgrade from CTI bags to an aerated static pile (ASP) composting system. This involves coordinating with Bay Area Air Quality Management District, performing emissions calculations, and preparing documents for regulatory review. Yorke Engineering prepared the compost expansion air permit application, while HDR prepared the applications for the associated heavy equipment and facility-wide emissions calculations.

Prior to HDR Experience

West Coast Waste, Integrated Organics Recycling Facility Permitting, CA

The project consisted of expanding an existing chip/grind facility to include a material recovery facility, transfer station, covered composting system, and an anaerobic digestion facility. Cindy acted as Project Manager through the Conditional Use Permit/Mitigated Negative Declaration process with the Lead Agency and obtaining a full Solid Waste Facility Permit (SWFP). This work included design considerations, plan preparation, and report generation. The project team crafted, issued, and managed a Request for Proposals to anaerobic digestion technology vendors which ultimately led to the selection of a preferred vendor to work on the next stages of facility development.

West Coast Waste, Agricultural Compost Facility Permitting and Compliance, CA

WCW hired Clements Environmental to help select a composting technology, prepare facility design, and acquire necessary environmental permits for a greenfield site. Cindy acted as Project Manager across project components, including proposal preparation resulting in the award of a \$1.4 million CalRecycle Organics Grant for infrastructure and a \$200,000 California Department of Food and Agriculture for compost-related research. The primary goal of the project was to get the facility up and running as quickly as possible to maintain landfill diversion. With adept pre-planning, effective communication, and expert knowledge in both applicable regulations and industry constraints, the project completed its CUP/MND in a record 45 days. Cindy then led the project on to obtain an EA Notification Tier Permit from the LEA in a few weeks, and a six-month Experimental Air Permit from San Joaquin Air Pollution Control District in just a few days. WCW was also one of the first Tier 1 facilities to successfully enroll in the newly adopted WDR in the Central Valley RWQCB.

Republic Services, Covered Compost System and Pre-Processing Building Permitting at Otay Landfill, CA

Project Manager for acquiring the necessary environmental permits to operate a covered aerated static pile (ASP) composting system and an organics pre-processing station at Otay Landfill. The ASP composting system is located within the active disposal area of the landfill, thus creating design and permitting complexities to be addressed in the revised or new operating permits. Cindy led the project through an Addendum to the landfill's existing Environmental Impact Report and use permit, and assisted with the preparation of the Air Quality and Greenhouse Gas Technical Study. Key subsequent work included the preparation of the Report of Composting Site Information and Operational Statement for the LEA's review and concurrence, and working with the San Diego RWQCB to enroll in the WDR for Composting Operations.

Mid Valley Disposal, Covered Compost System Permitting and Compliance, CA

Cindy was brought onto the project during the compost operation's air permitting process, and helped settle the applicability and practicality of the Authority to Construct's (ATC) conditions with San Joaquin Valley APCD. Additional permit technical assistance was provided to obtain and maintain compliance with the facility's SWFP, WDR, and Stormwater Industrial General Permit. The project team then helped secure \$1.5 million to expand the composting from 200 to 300 tons per day, which required permit modifications, in particular the ATCs and staying below Title V thresholds. Cindy has acted as lead liaison with the Air District since 2015, which, in addition to permitting, included facilitating the approval of facility's successful emissions initial source test.

Pacific Organics Solutions, Covered Compost Facility Grant & Permitting, CA

Served as technical expert to client in securing necessary environmental permits for organics covered composting facility and positioning project for CalRecycle grant. Prepared and coordinated approval of Technical Report for WDR exemption with the North Coast RWQCB. Helped secure \$3 million from CalRecycle Organics Grant Program to procure and construct compost system.

Harvest Power, East Bay Municipal Utility District (EBMUD) Organic Waste Projects, CA

Clements was retained to prepare the necessary solid waste facility reports for two organic waste projects proposed to be co-located at EBMUD's wastewater treatment plant in Oakland. The first was creating a Transfer Processing Report for an organics facility operated by Harvest Power that consisted of several organic waste conditioning equipment. The second was the development of an In-Vessel Digestion Report for EBMUD's Food Waste and Urban Organics Processing Facility designed to receive organic waste from Recology. Cindy led the bulk of the effort to prepare these reports, as well as coordination with Harvest Power on facility specifications. These reports detailed the use of dedicated foodwaste digesters for the Recology and Harvest Power prepared feedstocks, and included the technical descriptions of each pre- and post-processing system, supporting design calculations, and compliance with state minimum standards. Although the documents were prepared, the projects were put on hold due to change in project direction.

Cumulative Permitting Experience (Prior to HDR)

Facility Type	CEQA/Land Use	CalRecycle Permits	Air Permits	Water (WDR)	Water (IGP)
MRF/Recycling Facilities	1	N/A	0	N/A	25
MRF/Transfer Stations	4	8	1	N/A	10
Organics Processing Facilities	5	7	4	7	3



Tim Raibley PE

EDUCATION	REGISTRATIONS	PROFESSIONAL MEMBERSHIPS	INDUSTRY TENURE
BS, Civil Engineering, California State University, San Jose	Professional Engineer (Civil): California No. 35222	Solid Waste Association of North America (SWANA)	42 Years

Tim will serve as the Principal/Technical Specialist of the project logistics. He has more than 30 years of environmental and civil engineering experience, including extensive organic and compost facilities, anaerobic digester facilities, waste stream economic analysis and feedstock evaluation. Tim is actively supporting clients like the City of Sunnyvale, City of Mountain View, South Bayside Waste Management Authority, Oregon Metro, and King County navigate challenges associated with managing organic waste, including compliance with regulations such as SB 1383. Tim's experience working with a wide variety of feedstock sources, evaluating aerobic and anaerobic digestion technologies, and engaging with stakeholders will add substantial value to this project.

RELEVANT EXPERIENCE

Recology, Jess Ranch Compost Facility Final Environmental Impact Report, CA

Project manager for the preparation of the facility design, evaluation of environmental impacts and assistance in securing necessary permits for a aerated static pile compost facility. The analysis included comparing various types of aerobic technologies that could comply with the rigorous air emission standards of the Bay area and the central valley. Tim also prepared the engineering designs of the site configuration and facility sizing for a variety of possible tonnage throughput rates using a variety of possible treatment technologies.

Tim also served as project manager for the Environmental Impact Report as well as facilitating stakeholder and public outreach. As discussed above in the Jess Ranch qualification, mid-way through the project Recology purchased the Grover Compost facility (later renamed Blossom Valley Organics North) in Vernalis which made continuation of the Jess Ranch site unnecessary. Tim continued assisting Recology at the Grover/BVON site for several years.

Nevada County, McCourtney Road Transfer Station, CA

HDR was retained to plan, design, prepare the CEQA analysis, conduct public outreach and engagement, and assist in the construction of Nevada County's redevelopment of their regional solid waste facility serving two urban cities plus a large rural region in Nevada County. The County's tradition of high self-haul uses of the landfill became problematic when the small existing transfer station became unable to accommodate increased traffic. Our planning efforts identified the need for the County to implement changes in how they manage waste and recyclables for them to be in non-compliance with diversion mandates. HDR lead the preparation of the CEQA process, identifying the proposed development as the mitigation to the current traffic congested conditions. We recommended and performed an early biological assessment of the site that informed our design team of sensitive species on the site, thereby minimizing impacts to the site biological resources.

City of Phoenix, 27th Avenue Compost Facility Planning, Design and Economic Study, AZ

Project manager for evaluation of the technical and financial viability of developing a compost facility to serve the city's yard and food wastes. Explored various compost treatment methods to accommodate increasingly putrescible feedstock materials, as well as addressed other variables that are relevant to the analysis of the facility. The city expected the expanded yard/food waste program to require the facility to process 90,000 tons per year. Prepared an interim facility design plan to relocate the current chip/grind operations to allow the current area to be developed into the future compost facility. Also assisted in the coordination of permits required for the facility which for this location.

City of Los Angeles, Lopez Canyon Environmental Center Organic Composting Feasibility Study, CA

The City of Los Angeles Sanitation & Environment (LASAN) hired HDR to conduct an Organic Composting Feasibility Study at the Lopez Canyon Environmental Center (LCEC). LASAN currently operates green waste composting facility at the LCEC and accepts vegetative waste from residential curbside collection programs along with small contractors and City departments. California State Law SB 1383 requires a 50 percent reduction in statewide disposal of organic waste from the 2014 level by 2022 and 75 percent reduction by 2025. To comply with SB 1383, LASAN is seeking to collect residential food waste in the same cart as their current green waste program. This feasibility study will evaluate the potential to develop a fully permitted composting facility for both food waste and green waste at the LCEC. The study explores the necessary procedures, modifications to the existing composting facility, permits, regulations, training, equipment and estimated cost for composting food waste and green waste.

Composting Facility Expansion Design and Operations Improvements - Grover Compost, CA

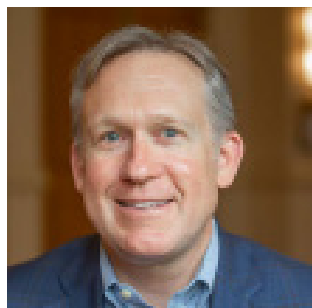
Project manager serving Recology who retained HDR to improve the former Grover Compost in a variety of expansion improvement and operational modifications. Recology purchased the 150-acre Grover compost facility as a part of their serving the greater San Francisco Bay Area in the diversion of organic wastes. Developed a Compost facility Master Plan that included expansions to the facility pre-processing capacity. Prepared construction design and specifications for a new receiving/preprocessing facility at this site. The design included geotechnical, civil, and electrical designs for two new pre-processing/grinding lines to enable the receipt and processing of 2,000 tons per day. Other improvements included electricity improvements (to reduce emissions caps due to diesel generator for key grinding equipment), water supply, storm water management and containment, etc. The site traffic pattern was refined to reduce crossing traffic and maximize the distribution of organic materials from the pre-processing area into the compost windrow system and through to the final screening and product sales process.

Food Scraps Management, Orgeon Metro, OR

Tim is the lead technical advisor assisting Oregon Metro in the development of a program to manage the regions food scraps from commercial waste collected in the greater Portland region. HDR assisted Metro prepare and issue a Request for Proposals for companies to provide anaerobic digestion, beneficial use of biogas and management of the system's liquid and solid residues. In addition to preparing the RFP, HDR performed technical reviews and participated in evaluation committee meetings with Metro staff in evaluating the responses and short-listing the preferred responses. Metro decided the offering was not financially attractive for their needs and has initiated the design for the facility to be located at their Metro Central Transfer Station. HDR is continuing to serve Metro in project. Tim worked with equipment vendors and developed a preliminary design of the food waste de-packaging and slurry system at the MCTS. HDR is currently preparing the design plans for the facility.

Biosolids Composting Facility Odor Control System Planning and Design, OH

HDR is a sub to the Hatch/Chester team in developing renovation plans of the Southwest Central Compost Facility managing Biosolid materials from the region's wastewater treatment facilities. HDR's role is to assist in evaluating options to renovate the existing, aging facility to accommodate increased quantities of biosolids and to reduce fugitive odors from the facility. Our analysis included evaluating the facility mix design, bulking material management system, and recommending improvements in the facility's aerated static pile compost system. The analysis included exploring system improvements to accommodate an increase from the average 170 tons per day of wet sludge to a peak of 400 tons per day. These quantities equate to a total facility throughput of approximately 170,000 tons per year inclusive of bulking material. HDR also assisted in the development of engineering design and preparation of plans and specifications for the renovation of the facility.



John Carlton PE, BCEE

EDUCATION	REGISTRATIONS	PROFESSIONAL MEMBERSHIPS	INDUSTRY TENURE
BS, Civil and Environmental Engineering, Duke University	Professional Engineer: NJ, FL, MD, VA American Academy of Environmental Engineers	Solid Waste Association of North America (SWANA) American Academy of Environmental Engineers, Solid Waste Committee, 2011 – Present	32 Years

John has more than 30 years of experience in all aspects of solid waste management as a consultant and in executive positions for public sector authorities. His strength lies in strategic planning where he has led the solid waste management planning efforts of both small rural communities and large urban cities and counties. In addition to strategic planning, John has significant experience with integrated solid waste management systems, including environmental permitting, landfill and transfer station designs, facility operator procurements, operational reviews, feasibility studies, collection franchising, financial reviews and rate setting, market assessments, and due diligence reviews. John has a strong working knowledge of solid waste management regulations and practices, and has significant experience working with stakeholders, legislators, and regulators.

RELEVANT EXPERIENCE

Solid Waste Management Consulting Services, Madera County, CA

Project Manager. John provided a number of consulting services to Madera County, including operations reviews, financial modeling and rate recommendations, development of an organics management plan, negotiated amendments to landfill and transfer station operating contracts and franchise collection agreements. He is considered an extension of staff and manages monthly operations meetings, quarterly financial reviews, and an annual solid waste workshop with the Board of Supervisors. John is currently working with the County to develop policies, ordinances, franchise agreement amendments, rate structures, and programs to help the County comply with SB 1383.

Madera County, Solid Waste Collection Franchise Procurement, Madera County, CA

Project Manager. This project involved the preparation of a Request for Proposals, proposal review, facilitation, and negotiations for the solid waste collections services in the Mountain Franchise area. Additional services provided included ordinance development and recycling program implementation assistance.

Madera County, Fairmead Landfill Financial and Operational Model, Madera County, CA

Officer-in-Charge. John assisted in the development of a financial and operational model of the County's Fairmead Landfill and provided quarterly updates and operational feedback to the County.

Mendocino County, Mendocino Solid Waste Consulting, CA

John is acting as the County's Solid Waste Director through this consulting assignment. He is providing facility and franchise rate reviews, franchise contract management including amendments to address new California regulations (SB 1383), solid waste records management, and other services as needed.

City of Fort Bragg, City of Fort Bragg Franchise Collection Services, CA

The City of Fort Bragg is joining the County of Mendocino in the upcoming RFP franchise collection services. It's one RFP with two potential contracts. The document is drafted at this point, but the City is looking to hire HDR to assist them in answering City specific questions and reviewing proposals.

County of Sonoma, Solid Waste Management Consulting Services, CA

John is providing Sonoma County with various consulting services including helping the County clarify financial terms of the County landfill operations contract, evaluating solid waste collection rate structures, and other related solid waste matters.

King County, Clean Water Plan, WA

HDR (as a subconsultant to Brown and Caldwell) is providing planning, business analysis, decision science, economic, financial, and engineering services necessary to develop a system-wide comprehensive plan (Clean Water Plan) for the regional wastewater system of the King County (County) Wastewater Treatment Division (WTD). WTD provides high-quality and effective treatment of wastewater collected from local sewer agencies in a service area of 420-square miles and for approximately 1.6 million people in the central Puget Sound region. The planning effort involves multidisciplinary professionals and a dedicated regional engagement process to build on a values-based conversation around water quality protection for the region. The project team is collaborating with an advisory body, including a Regional Leaders Forum consisting of elected officials, representatives from the business community, environmental organizations, and other stakeholders. This comprehensive assessment of demands on the regional wastewater system includes a careful examination and analysis of regional infrastructure investment priorities, water quality benefits relative to cost, wastewater rate affordability, and the priorities and associated trade-offs.

Larimer County Public Works, Larimer County Phase 2 Study, CO

HDR was retained by Larimer County to assist Larimer County and the North Front Range Regional Wasteshed Planning Coalition with the development of a long-term sustainable solid waste management system. Through an extensive collaborative effort with the Technical Advisory Committee, we evaluated up to eleven infrastructure options for consideration for the future solid waste management system. The evaluation included sustainable return on investment (SROI) modeling, operational cost estimating, permitting efforts, schedule, and capital cost estimates. Our project team determined preliminary sizing of each infrastructure option including a transfer station, landfill, yard waste facility, food waste facility, and construction and demolition debris facility. As a result of these evaluations, the infrastructure options were ranked in tiers with the Tier 1 facilities recommended for implementation. Stakeholders and the Policy Advisory Committee were key contributors to the evaluations that lead to the final and successful development of a Solid Waste Infrastructure Master Plan up for adoption by Larimer County.

Montgomery County, Aiming for Zero Waste: A Vision for Sustainable Materials Management in Montgomery County, MD

Technical Reviewer. John provided quality control reviews in the development of Montgomery County's zero waste strategic plan. The plan reviewed existing processing facilities, enhancements to the current diversion and recycling system, benchmarking and best practices, and considered options for the collection and disposal of "what's left."

DSNY, Mechanisms to Implement and Support Pilot Recycling Initiative Program, NY

Technical Reviewer. John provided quality control reviews of a study for DSNY that explored options to improve diversion of designated recyclable materials in public housing units managed by the New York City Housing Authority (NYCHA). Multiple options were evaluated for incentivizing recycling, and results were expressed in terms of diversion potential, community impacts, and costs.

Materials Recovery Facility Feasibility Study, Des Moines, IA

Project Manager. John managed the feasibility study for the development of a MRF that would accept and process Iowa's most comprehensive curbside recycling program. The study developed multiple operating scenarios for evaluation purposes and projected recycling volumes over a 20 year period. The study also evaluated a proposed site, reviewed commodity markets, developed capital and operating cost estimates, and analyzed potential project risks.

Long-Term Solid Waste Disposal Alternatives Study, RI

Technical Reviewer. John provided quality control reviews of a study to assess the potential future solid waste disposal technologies for the Corporation to initiate, permit and construct as it moves into the future. The study reviewed both proven and emerging technologies. Proven technologies were reviewed to identify benefits, drawbacks, costs and critical path timelines. Emerging technologies were reviewed on a high-level qualitative basis.



Andrea Ramirez PE, ENV SP

EDUCATION	REGISTRATIONS	PROFESSIONAL MEMBERSHIPS	INDUSTRY TENURE
MS, Civil and Environmental Engineering, California Polytechnic State University, San Luis Obispo BS, Environmental Engineering, California Polytechnic State University, San Luis Obispo	Professional Engineer – Civil: CA, #C 73180; AZ, #72222 Envision Sustainability Professional Credential, #6080	Arizona Forward, Member, 2019 – Present, Southern Regional Council Member, 2021 - Present Solid Waste Association of North America (SWANA), Member, 2009 - Present SWANA, Utah Beehive Chapter Member, 2017 – 2019 SWANA, Arizona Chapter Member, 2019 - Present SWANA, Young Professionals Region 1 Representative, 2013-2015, 2017 – 2018 Gold Rush Chapter Board Member and Young Professionals Chapter Liaison, 2015-2017.	15 Years

Andrea has experience supporting clients on a variety of planning and design projects for both waste disposal and waste diversion programs. She has performed feasibility studies, site evaluations, conceptual site designs, and master planning for an assortment of waste management and diversion facilities, including composting facilities, transfer stations, resource recovery parks, anaerobic digesters and other alternative energy facilities. In addition, Andrea has performed evaluations of economic and environmental impacts for waste management programs, including greenhouse gas emissions estimates, waste diversion studies, zero waste management plans, and recycling economic analyses.

RELEVANT EXPERIENCE

Recology, Report of Waste Discharge (ROWD) Application for the Recology Blossom Valley Organics North (BVON) Composting Facility, CA

Project Engineer. HDR prepared the ROWD for BVON for submittal to the Central Valley Regional Water Quality Control Board (CVRWQCB) and the State Water Resources Control Board (State Water Board). The ROWD characterized the waste proposed for discharge from the facility and the potential to impact groundwater and surface waters. It addressed both current composting operations of the existing BVON facility and proposed improvements to the facility. HDR also prepared a Hydrogeologic Investigation Report in conjunction with the ROWD. As Project Engineer, Andrea prepared the ROWD document, coordinated with the hydrogeology team as needed, and assisted with addressing regulatory requirements and reviews.

Recology, Master Plan and Site Improvement Plans for the Recology Grover Composting Facility (now Blossom Valley Organics), CA

Project Engineer for the design of a new receiving and pre-processing area for the facility and master planning for increased production at the facility. The work included assisting with the design and production of grading, utility, and site circulation plans and specifications for bid. Other work included site storm water management evaluation and design and sizing calculations for site planning, presented in a series of technical memorandums.

Recology, Water and Wastewater Management Plan for the Recology Blossom Valley Organics North (BVON) Composting Facility, CA

Project Engineer. A preliminary Water and Wastewater Management Plan was included as part of the facility's ROWD. After some site improvements were completed, Andrea led HDR's work in preparing a Revised Water and Wastewater Management Plan as an update to the preliminary plan. As part of this work, HDR addressed comments and provided additional information as requested by the CVRWQCB.

Sonoma County, Compost Facility Site Selection, Design and EIR, CA

Project Engineer. HDR performed a Site Selection Study and Design for a regional Compost Facility to serve the Sonoma County Waste Management Agency and its member jurisdictions. The purpose of the study was to replace a temporary compost facility operating on a portion of the County landfill. Ms. Ramirez was involved in the designs for several of the top sites, including the grading design and earthwork quantity estimates. In order to illustrate two extremes of site usage, HDR modeled two types of operations; a windrow process and a static aerated pile process, processes which have differing impacts on the size of the operation as well as environmental issues such as storm water contact and associated run-off. Ms. Ramirez also prepared exhibits for presentation to the client. Following the Conceptual Design, HDR assisted in the preparation of an Environmental Impact Report for the top three ranked sites.

City of Phoenix, 27th Avenue Compost Facility Planning, Design, and Economic Study, AZ

Project Engineer. HDR evaluated the technical and financial viability of developing a compost facility to serve the city's yard and food wastes. Explored various compost treatment methods to accommodate increasingly putrescible feedstock materials, as well as addressed other variables that are relevant to the analysis of the facility. The city expected the expanded yard/food waste program to require the facility to process 90,000 tons per year. Prepared an interim facility design plan to relocate the current chip/grind operations to allow the current area to be developed into the future compost facility. Also assisted in the coordination of permits required for the facility which for this location. Andrea performed the sizing estimates and prepared project reports, including overviews of composting technology options and conceptual site layouts.

Haute-Yamaska Regional County Municipality, Evaluation of Anaerobic Digestion and Composting for Landfill Waste Reduction, Quebec, Canada

Project Engineer. HDR developed a planning level site design and cost estimate for a waste treatment center using either anaerobic digestion or composting technology to reduce landfill organic waste and divert 60% of organic waste (organics derived from municipal solid waste and biosolids from the wastewater treatment plant) from the landfill, and convert them in to usable (profitable) products like compost and biogas. Ms. Ramirez was the Project Engineer for the composting option.

Metro Waste Authority, Compost Facility Evaluation, Design, and Construction Services, IA

Project Engineer. HDR evaluated the use of an existing operational compost facility located along the river near downtown Des Moines, versus developing a new facility at the Authority's landfill. Andrea performed analyses of the current and potential operations, worked with the team to develop a Conceptual Master Site Development Plan and a range of preliminary capital cost estimates for improvements at both facilities. Analyses included revisions to stormwater management, site circulation, grinding/processing activities as well as accommodating seasonal variations in quantity and operations and planning for future growth. Following acceptance of the study, HDR began detailed design of the new compost facility, customer access roads, and utility infrastructure improvements located at the Authority's landfill followed by bidding support, construction administration and parttime observation services.

Confidential Client, Compost Planning, Design, and Economic Study

Project Engineer. A confidential client retained HDR to evaluate the technical and financial viability of developing a compost facility that will serve as an expansion to the waste management infrastructure at an existing landfill. Several key options were considered, including various compost treatment methods, feedstock materials, as well as address other variables that are relevant to the analysis of the facility. In anticipation of the expanded material throughput, the client has requested assistance in the preparation of a feasibility study. Ms. Ramirez served as a technical reviewer on the design and worked on the development of the feasibility study report.

Town of Cary, Residuals and Biosolids Master Plan, NC

Project Engineer. HDR completed a comprehensive master plan for treating and disposing of biosolids from three wastewater treatment plants and one water treatment plant. Work included developing mass balance projections; conducting a condition assessment of key facilities including digesters, thermal dryer, belt presses, and centrifuges; identification of contingency plans for handling and disposal; evaluation of composting of biosolids and yard waste; and conducting a residual and biosolids benchmarking and market analysis. Ms. Ramirez worked on the evaluation of composting biosolids and yard waste.

City of Virginia Beach, Virginia, Composting Facility Feasibility Studies, VA

Project Engineer for determining the viability of an indoor organics management facility. HDR provided the City with information on several options for types of processing, taking into consideration different combinations of feedstock options, which included yard wastes, food wastes, and biosolids, and the potential to produce renewable energy. The feasibility study included preliminary cost estimates. Ms. Ramirez assisted with these tasks and led the creation and production of the conceptual site layouts.